Remarks

Claims 1 - 13 are pending. Favorable reconsideration is respectfully requested.

Polyorganosiloxane resins are highly crosslinked, normally solid resins which are generally soluble in organic solvents such as 1-dodecene and toluene, but have little or no solubility in water or alcohol solvents such as methanol and ethanol. The resins are customarily supplied as a solution concentrate in toluene, or in solid form, obtained by spray drying. The solid resins are often employed in applications such as stovable powder coatings, but have a myriad of other uses as well.

Silicone resins are prepared by the acid hydrolysis or cohydrolysis of highly functional alkoxysilanes such as tetraethoxysilane, often in conjunction with other silanes such as vinyltriethoxysilane which imparts vinyl functionality, trimethylethoxysilane, which acts as a condensation terminator, etc. Depending upon the particular silanes present, the resins may be termed MQ resins, MDQ resins, MT resins, etc. Following the initial acid hydrolysis, condensation occurs in the presence of base, which is subsequently neutralized by additional acid. Thus, two neutralizations occur, one by base reacting with the acid used in hydrolysis, and one by acid reacting with the base used in condensation. In both these neutralizations, salts are formed which must be removed from the product by filtration.

In the past, as illustrated by commonly assigned Weidner et al., U.S. Patent 5,548,053 ("*Weidner*"), the filtration occurs after the base neutralization by acid, while the solid resin is dissolved in organic solvent. Unfortunately, the filtration leaves a turbid solution of resin which still contains some salt. A second filtration is then necessary, generally with a filter medium of smaller pore size, to remove these small salt particles. The necessity for two filtrations consumes additional process time, and in the case of viscous resin solutions, the filtration rate, particularly with small pore size filter media, is very slow, further extending processing time and thereby adding considerably to the cost of preparation, a cost which must be passed on to the customer.

Applicants have surprisingly and unexpectedly discovered that a single filtration can yield a clear product, free of haze or opalescence, if, following or during the neutralization of base with acid, and prior to filtration, an organopolysiloxane is added to the resin solution. Filtration of this mixture is effective, in a single step, to remove substantially all precipitated salts, providing a clear product.

Weidner discloses a process which is similar in that the resin product is prepared by acid hydrolysis, base condensation, and neutralization; followed by filtration. However, in the *Weidner* process, no organopolysiloxane is added prior to filtration. Comparative Examples 2 and 3 of the present application are substantial duplicates of the Examples of *Weidner*, and illustrate the filtration problems attendant to his process. In the subject invention examples, no filtration problems occur, and multiple filtrations are not necessary to produce a clear product.

It is true, as the Examiner indicates, that *Weidner* discloses that his resin products are soluble in organopolysiloxanes. However, the organopolysiloxanes to which the he refers are not employed in his process, but rather pertain to end use applications, for example where an Si-H functional resin is dissolved in a vinyl-functional organopolysiloxane fluid, *Weidner* no where discloses, teaches, or suggests that an organopolysiloxane be added to the resin solution prior to filtration.

In the rejection of the claims over *Weidner* under 35 U.S.C. §§ 102(b) and 103(a), Applicants believe that the basis for this rejection may be premised on a misunderstanding that the order of the various steps is not important, and that they may be practiced in any order. While it is true that the order of steps may sometimes not be important, and claims containing multiple steps may in such cases not be limited to any particular order, in this case that is not true; the various steps must be performed in the order given. Base condensation cannot precede acid hydrolysis, for example, and neither can neutralization of the base precede the base catalyzed condensation. Likewise, the salt cannot be filtered off prior to its formation. To ensure that the claims are so interpreted, claim 1 has been amended

to recite that the process comprises the steps in the order stated. Withdrawal of the rejection under 35 U.S.C. § 102(b) is therefore solicited.

With respect to the rejection of claims 12 and 13 under 35 U.S.C. § 103(a), since *Weidner* does not teach or suggest the principle process steps in the order claimed, withdrawal of this rejection is also solicited. Applicants note, however, that *Weidner* does not teach or suggest addition of any of these ingredients prior to filtration, nor even after filtration or spray drying. While it may be common to add these ingredients, e.g. an inhibitor, to compositions such as powder coatings which employ reactive pulverulent resins, these are not added to the resin during its preparation (and prior to filtration), but to the finished resin concentrate, spray dried powder, or to the final end-use composition itself. The cited art does not teach addition of these ingredients during the preparation process, prior to filtration. Withdrawal of the rejection of claims over *Weidner* under 35 U.S.C. § 103(a) is solicited for this additional reason as well.

Applicants submit that the claims are now in condition for Allowance, and respectfully request a Notice to that effect. If the Examiner believes that further discussion will advance the prosecution of the Application, the Examiner is highly encouraged to telephone Applicants' attorney at the number given below.

Respectfully submitted,

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